Patricia Flores/R3/USEPA/US

03/07/2006 10:18 AM

To Victor Janosik/R3/USEPA/US@EPA
cc
bcc
Subject Review of Lord-Shope Landfill's Request to Upgrade the Existing Off-Gas Treatment Unit

Vic,

I reviewed Lord Corporation's and ARCADIS' response to your October 25, 2005 letter on switching to an activated carbon system to treat the off-gas from the ISVS system. There are a couple of items that I believe that Lord Corporation needs to address:

Question 1

Lord states in the first paragraph that, "The total VOC concentration has decreased from 13,316 pounds per year (lbs/yr) in 1997 to 2,896 lbs/yr in 2004 ..." In May 2005, Lord switched from analyzing the ISVS samples in-house using Method TO-14 to Method TO-15 and an independent laboratory. Due to the better accounting of VOCs using Method TO-15, EPA expects the data to show that more VOCs were emitted from the landfill in 2005 than in 2004. EPA requests that Lord Corporation submit to EPA the amount of VOCs that were emitted in 2005 from the Lord-Shope Landfill.

Question 2 - Vinyl Chloride Evaluation

Again, 2004 data was used to evaluate the amount of vinyl chloride in the landfill system. EPA requests that Lord Corporation base its calculations on 2005 vinyl chloride data. Because of the amount of dilution necessary to analyze the influent samples, some of the vinyl chloride concentrations (e.g. May & June 2005) are listed as non-detects. For any non-detect concentration, one-half (1/2) of the Limit of Quantitation should be listed as the concentration of vinyl chloride in the respective sample for this analysis. For May 2005, the Limit of Quantitation for vinyl chloride was 5,100 ug/m3, so 2,550 ug/m3 should be used in the analysis. Likewise, for June 2005, the Limit of Quantitation for vinyl chloride was 1000 ppbv, so 500 ppbv should be used in the analysis.

Air modeling was performed with the ISCST3 model to determine whether unmitigated amounts of vinyl chloride from the ISVS system would produce unacceptable ambient air concentrations. EPA considers air modeling to be a valid approach, however, the modeling should be re-performed using 2005 values for vinyl chloride. EPA requests that Lord Corporation submit all source input parameters plus meteorological, terrain, input and output files associated with the modeling exercise. EPA also requests that Lord Corporation produce a map showing the predicted annual ambient air concentrations of vinyl chloride.

average

If you have any questions or concerns, please call me at x2193.

- Pat

Patricia I. Flores-Brown
Environmental Scientist
Air Protection Division (3AP22)
U.S. EPA, Region 3
flores.patricia@epa.gov
phone: 215-814-2193
Visit us at: http://www.epa.gov/reg3artd/